

To: Graybill, Eric[graybill.eric@epa.gov]
From: Molnar, Adam
Sent: Wed 2/5/2014 12:35:11 PM
Subject: Muffle oven + MCHM Carryover



Eric,

MUFFLE OVEN

I ran the muffle oven yesterday morning and into last night and we have a problem. The temperature only got up to ~650 deg F. I turned the oven off and on again this morning to see if it was a one-time fluke. Did you ever see anything like this happen??

The second muffle oven is working so we might have a backup. I'm thinking that maybe the placement of the glassware is causing a problem because I have a glass tray full of NaCl laying across the top shelf, maybe its blocking a sensor or something. Also, when I shut the oven down this morning I heard a leak in the back (like a low range whistle) and I'm not sure if this is normal.

MCHM CARRYOVER

I figured out where my carryover is and why I had no carryover initially. I was doing a check for carryover and I ran my hexane solvent vial first to get a baseline for the level of contamination present. I had an initial carryover concentration of ~150 and 50 ppb for the two MCHM peaks. Well the first thing I tried was replacing my hexane solvent vial with a new vial filled with fresh hexane and BOOM!!! zero detection of the two peaks. The injection produced a completely flat baseline with absolutely no trace of any carryover. So somehow while running some 10,000 ppm standards the solvent vial got contaminated and made it appear that the system was full of carryover. I think the MCHM must adhere to the metal tip of the syringe and get transferred that way. To combat this I'm going to add some more rinse solutions on my autosampler tower so the needle will get progressively cleaner as it dips from one to the next and I'm possibly going to

set a viscosity delay so the syringe time stands in solution for a few seconds.

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